KNN2/KNN (Q9L10) 42% (8/19)

✗ 1. KNN is
- A data-driven method
- B model-driven method
- C I do not know

✓ 2. The dependent variable of the classification is
- A categorical
- B numeric
- C I do not know

✓ 3. KNN can be used for regression
- A Yes
- B No
- C I do not know

✓ 4. In the case of KNN classification we use
- A average of outcomes
- B majority voting scheme
- C I do not know

✗ 5. Which of these errors will increase constantly by increasing k?
- A train error
- B test error
- C both
- D I do not know

✓ 6. This function can be used to perform KNN classificationin R
- A knn()
- B k_nn()
- C knnreg()
- D knearneib()
- E I do not know

✗ 7. With the increase of k, the decision boundary will be

- A simplified
- B more complex
- C I do not know
- D unchanged

✓ 8. KNN algorithm is sensitive to outliers

- A True
- B False
- C I do not know

✓ 9. KNN

- A is a supervised learning algorithm.
- B is an unsupervised learning algorithm.
- C I do not know

✗ 10. In the case of small k we have

- A overfitting
- B underfitting
- C it depends on the situation
- D I do not know

✓ 11. Why do we need scaling in KNN?

- A to avoid overfitting
- B to avoid underfitting
- C to have "equal" weights for variables
- D I do not know

✗ 12. Let k = n, (n- number of observations), K-NN is same as

- A random guessing
- B everything will be classified as the most probable class (in total)
- C everything will be classified as the least probable class (in total)
- D I do not know

✗ 13. This function can be used to perform K-NN regression in R

- A knn.reg
- B knnforreg
- C regknn
- D knnforregression
- E I do not know

✗ 14. Do you need to worry about scaling with one explanatory variable?

- A No
- B Yes
- C I do not know

✗ 15. n - the number of observation,
m - the number of explanatory variables

When n=k, m=1, the decision boundary for regression is

- A a line
- B a stepwise constant function
- C a stepwise quadratic function
- D I do not know

✗ 16. Which of these algorithms can be used to fill the missing values

- A KNN for regression
- B KNN for classification
- C both
- D I do not know

✗ 17. Which one is better: KNN regression or Linear regression ?

- A KNN outperform LR if the parametric form that has been selected is close to the true form of f
- B LR outperform KNN if the parametric form that has been selected is close to the true form of f
- C KNN will always outperform the LR
- D I do not know

✓ **18. Which one is the Disadvantage of KNN?**

(A) required assumptions

(B) cannot be applied for regression

(C) difficult to perform

(D) the problem of high dimensional data

(E) I do not know

✗ **19. The best k for train set equals to**

(A) 1

(B) 2

(C) 0

(D) I do not know

⊘ **20. What is the Parzen window**

idk